



Washington State Transportation Commission

Regular Meeting Summary
December 12 & 13, 2017

Chairman Litt opened the meeting at 9:00 am with introductions by Commissioners and Staff. Commissioner Tortorelli was not in attendance and Commissioner Serebrin was delayed.

SR 99 INVESTMENT GRADE TRAFFIC AND REVENUE ANALYSIS AND TOLL RATE SETTING

The Commission began its review and analysis of traffic and revenue projections for the tunnel that will replace the Alaskan Way Viaduct. Toll rates will raise \$200 million toward project construction costs over time. Tolls will vary by time of day and day of the week to manage congestion on the facility and diversion impacts on surface streets.

Rob Fellows, Manager, Policy & Planning, WSDOT, began the discussion by noting that today's traffic patterns will change with the tunnel opening. Also, there are many factors and projects planned or underway that will affect downtown traffic:

- At opening, the parallel Alaskan Way and connection to Western and Elliott Avenues will not be completed;
- Conversion of the transit tunnel to rail-only will move 40 buses/hour/direction to surface streets until 2021, straining street and transit capacity;
- Significant growth in South Lake Union and downtown Seattle;
- Construction of a streetcar on First Avenue, Colman Ferry Dock replacement, Convention Center expansion and other projects; and
- Potential changes to downtown street capacity for transit, streetcar, and bicycles.

Brent Baker, Vice President Director, Systems Finance, & Economics Advisory Service, WSP USA discussed financial plan requirements. Draft legislation assumes that bonds would be pledged against motor vehicle fuel taxes to be reimbursed by tolls, similar to Tacoma Narrows Bridge financing. Changes in financial plan ground rules may occur as legislation progresses.

Rate Setting Requirements (Financial Obligations) for Tolls:

- Toll collection and tunnel operations and maintenance (O&M)
- Toll systems periodic repair and replacement (R&R)
- Debt service on bonds
- Additional reserves or "coverage" to protect against revenue fluctuations, to be determined by OST and WSDOT

Steve Abendschein, Senior Planner, Stantec, shared the Investment Grade Traffic and Revenue analysis. It is based on comprehensive data collection:

- traffic counts, including turning movements at intersections and volumes on arterials

- analysis of historical count data
- speed measurements using travel time runs and corridor speeds
- trip origins and destinations from regional surveys and corridor level “big data” sources
- socio-economic forecasts (population, households, and employment)

The analysis focused on 14 core districts serving as SR 99 catchment area. Socio-economic forecasts are higher than those used for the earlier ACTT study. It considers future highway and transit network conditions, including the closure of the 3rd Avenue transit tunnel to buses.

A two-tiered modeling structure uses the PSRC Regional Model as the basis for a Dynamic Traffic Assignment (DTA) model. Trip tables, modal splits, and trip characteristics are extracted from the regional model and incorporated into the DTA model. The DTA model simulates realistic congestion conditions and driver response to tolling. The Investment Grade work employs a more complex, toll choice component in the DTA model than previous ACTT work, which results in higher driver sensitivity to tolls. The model was calibrated for screen-line volumes, time of day patterns, speeds, and trip ends (origins /destinations).

Modeling included the following assumptions:

- No HOV exemptions
- Pay By Mail toll increment of \$2.00 (non-escalating)
- Pay By Plate fee of \$0.25 (non-escalating)
- No toll escalation (except in maximum revenue Scenario IG-2)
- 96 routine maintenance closures per year on nights and weekends
- Values of time are based on values from existing area toll facilities

The initial models considered the following toll rates:

Investment Grade 0 (Financial Plan):

- Minimum Toll \$1.00
- Off-Peak \$1.50
- AM Peak \$1.75
- PM Peak \$2.50

Investment Grade 1 (Low Diversion):

- Minimum Toll \$1.00
- Off-Peak \$1.00
- AM Peak \$1.25
- PM Peak \$1.25

IG-1 does not generate net revenues sufficient to meet debt service.

Carl See, Senior Financial Analyst, WSTC, reported the partner transportation agencies in Seattle had the following general feedback on tolls and toll policy:

- Consider long-term rate escalation tied to cost inflation
- Set rates by time period that best mitigate diversion
- Consider near-term rate escalation to address “period of maximum constraint”

Additional Rate-Setting Feedback:

- Exempt transit vehicles from paying tolls
- Exempt HOV, emergency/incident response, and maintenance vehicles
- Set freight (truck) rates that minimize diversion to other routes

Mr. See also noted policy ideas that would require legislative action to implement, as they relate to the use of funds or the debt repayment schedule. Mr. See noted that these ideas differ from current assumptions:

- Include toll funding to mitigate diversion impacts, including transit mitigation
- Additional support of mitigation for traffic management system improvements, including for freight movement
- Consider a 30 year debt repayment schedule
- Consider having toll revenue fund only O&M costs in excess of current viaduct O&M costs

The WSTC Tolling Team recommends the following rate scenarios for preliminary analysis:

- Option 1 –Annual/Periodic Escalation
- Option 2 –Peak Shoulders & Lower Mid-Day Rates
- Option 3 –Lower Initial Rates with Escalation Tied to Completion of Transportation Projects in Downtown Core
- Option 4 –Lower Initial Rates with \$0.10 Escalation Step
- Option 5 –Lower Initial Rates with 5% Escalation Steps

Additional Suggestions included:

- Assess exemptions consistent with SR 520 Bridge.
- Assess truck toll rate multiplier consistent with all existing facilities.
- Identify options for distributing costs that further enable escalation options.

Scenarios will be revised, if needed, in late March. Public outreach on tolling will take place between April and June. The Commission will propose toll rates in July, and adopt in September.

[SR 99 Tunnel Toll Rate Setting](#) [WSTC Tolling Subcommittee SR 99](#)

Action:

In addition to the scenarios discussed at the meeting, the Commission asked for development of a scenario that excludes tolling at night and on the weekend (Commissioner Batra).

Follow-Up: None at this time

PUBLIC COMMENT

Mark Bandy, Transportation Operations Division Director, Seattle Department of Transportation, said that the City is concerned about truck traffic on the waterfront.

Trucks over 30' are not allowed on downtown streets, but are allowed on Alaskan Way.

Larry Seaquist, former State Representative from Gig Harbor, observed that the study area for SR 99 tolling may be too small. GPS redirects his smartphone from far outside the study area.

Based on his experience with Tacoma Narrows Bridge tolling, Seaquist noted:

- Be extremely suspicious of WSDOT estimates of O&M costs;
- Costs of tolling should decline over time;

Mr. Seaquist also asked whether the Commission has asked if \$200 million is the correct amount to budget for. He doesn't think that anyone knows what the construction cost to the state will be. He suggested the Commission should alert the Legislature to the transportation chaos caused by the waterfront, convention center, and other construction.

WSDOT STATE FACILITIES ACTION PLAN

WSDOT's new office of Urban Mobility and Access has developed a state facilities action plan to help inform the update of the regional transportation plan and improve coordination of major projects in the central Puget Sound region with cities, counties, and other partners.

Robin Mayhew, Director, Management of Mobility, WSDOT, reported that the I-5 Action Plan being developed addresses near-term operational and demand-management improvements, I-5 preservation needs, and seismic preparedness.

Example strategies to improve operations include:

- New and upgraded ramp meters
- Parking management at worksites and overcrowded park and rides
- HOV lane dynamic control
- Expand bus on shoulder
- Expand shift workers' use of transit
- First-and last-mile to transit improvements
- Expand use of telework, compressed work schedules and flexible start times
- Expand vanpools through community partnerships

\$1.2 billion is needed to preserve the 800 lane miles of I-5 pavement through 2040. In addition, life-cycle costs must be addressed for other highway elements including drainage culverts, storm water systems, illumination, signals, ITS, and barriers, totaling \$2.5 billion through 2040. Another \$1.1 billion is needed to retrofit bridges in the Puget Sound area, and an additional \$161M to finish the lifeline system. This estimate does not include \$550 million to retrofit multiple hollow-column structures in the Central I-5 corridor through Seattle.

WSDOT also is reviewing HOV lane effectiveness in three ways:

- Near-term actions to address specific operational issues
- Implementation of HOT lanes and express toll lane programs on I-405 and SR 167
- Initiating work to engage Puget Sound regional partners in a comprehensive review of HOV lane policies

Before opening HOV access to new classes of vehicles, existing vehicle demand in HOV lanes must be managed.

Moving forward, ongoing I-5 operational analysis work will include:

- Incorporate analysis recommendations into proposed I-5 Visioning and Scoping

- Extending modeling capability to cover full Tumwater to Marysville corridor
- Developing and testing performance of alternative scenarios
- Identifying near-term partnership opportunities to advance implementation
- Applying results to other corridors in Central Puget Sound as part of a Regional Managed System Plan.

Briefing: Strategic Issues Facing WSDOT in the Puget Sound Region

Action: *Continue to monitor*

Follow-Up: None at this time

I-405 EXPRESS TOLL LANES (ETLs) TWO YEAR UPDATE

The I-405 Express Toll Lanes between Bellevue and Lynnwood have been in operation for 2 years. WSDOT reported on the performance of the I-405 ETLs, including results of a survey of public reaction and attitudes. Officials from two transit agencies that use the lanes reported on their travel times and ridership before and after ETL implementation.

The existing ETLs are part of a planned 40-mile corridor that will ultimately extend south to the Pierce County line. Previous HOV lanes were often as congested as general-purpose lanes during peak periods. Vehicle volumes have increased 3-24% depending on location and the number of people moving through the corridor has increased 5-30%. Average toll during peak periods: \$2.82. Two-thirds of tolls paid are under \$4.

Immediate next steps include:

I-405/SR 167 Direct Connector

- Under construction
- Open to traffic in 2019

Renton to Bellevue Widening and Express Toll Lanes

- Construction to begin in 2019
- Open to traffic in 2024

I-405 North End Improvements

- Legislature authorized \$5 million toward preliminary engineering

The Legislature established two performance standards for the lanes. Authorizing legislation requires closing the lanes as soon as practicable if they fail to meet both standards.

- Generate sufficient revenue to cover operations costs
- Move vehicles 45 mph 90 percent of peak periods.

The express toll lanes are generating enough revenue to support operations and to invest in improvements to the corridor. While the lanes are not meeting the speed target, it is primarily the southbound single-lane section bringing down the overall average. Between April and September, express toll lanes speeds moved 45 mph or faster 85% of the peak period. Previously, the HOV lane met this standard only 56% of the time (April-August 2015 data).

The peak-use shoulder lane, opened in April 2017, improved speeds in the northbound single lane section.

- NB single lane moved at 45 mph 68% of the time in the peak period before improvement
 - NB single lane moved at 45 mph 94% of the time in the peak period after improvements
- When looking at individual segments, the southbound single-lane section is the only section of the corridor to report under the target of 45 mph or faster during 90% of peak periods. This is pulling down the overall average.

In spring 2017, WSDOT conducted two public opinion surveys on the I-405 express toll lanes. One survey focused on *Good To Go!* customers and the other targeted I-405 drivers, including drivers who self-reported that they do not use the lanes. Both surveys found that 60% of drivers like having the option of a faster, more reliable trip.

- More than half of business survey respondents mostly or always use toll lanes
- Nearly two-thirds of respondents find toll lanes helpful for their work travel
- Most business respondents support funding future improvements with toll revenue

Consequences of removing express toll lanes

- Overall traffic performance degrades
 - Continued regional growth creating even more demand
 - No choice for a reliable trip without managed lanes
- Transit reliability suffers
 - Sound Transit investing \$860M in I-405 Bus Rapid Transit system from Lynnwood to Tukwila
 - Improvements achieved in Bellevue to Lynnwood segment would be lost
- New revenue source disappears
 - No clear path or timeline for funding Renton to Bellevue improvements

Potential Next Steps to Accelerate North End Improvements

- With optimal delivery, and assuming funding can be identified, planned improvements between SR 522 and SR 527 could be delivered by 2024.
- With toll revenue only (pay as you go), southbound capacity improvements could be accelerated by staging the project in two construction contracts:

Phase 1A – Southbound Capacity (\$225M)

- Partially rebuilds SR 522 interchange
- Second southbound express toll lane between SR 522 and SR 527

Phase 1B – Northbound Capacity and Transit (\$225-275M *not inflated*)

- Second northbound express toll lane between SR 522 and SR 527
- Direct access ramp/Bus Rapid Transit station at SR 527
- Environmental and transit elements

Every weekday, over 7,700 people ride transit routes that rely on ETL travel time savings.

- King County Metro travel times on I-405 have improved 15-29 percent in the PM peak, and 3-7 percent in AM peak. King County Metro route 237 (Woodinville to Bellevue) is saving up to 10 minutes during weekday afternoon trips.
- Community Transit travel times have improved 7.5 percent northbound, and are more reliable in both directions. For comparison, buses experienced twice as much variability on I-5 as on I-405, resulting in \$2.6 million in added schedule maintenance costs for 2015.

- In contrast to other corridors around the region where Sound Transit bus travel times and reliability have decreased due to rising congestion, routes on the I-405 corridor have seen improvement in performance. Rather than degradation, performance improved 1 percent. In early 2018, the agency is working to begin developing the bus rapid transit (BRT) service on I-405 and SR-522, funded by 2016 voter approval of Sound Transit 3. Sound Transit's \$860 million in investments toward the 2024 opening of BRT assume the completion of express toll lanes.

Bernard Van de Kamp, HCT East Corridor Development Director, Planning Environmental and Project Development, Sound Transit reported that ST experience is similar to Community Transit and Metro. ST has seen a 1-2% improvement in speed and a 4-5% improvement in ridership from 2014 – 2016.

Under ST 3, I-405 Bus Rapid Transit is a fully funded 37-mile corridor from Lynnwood to Burien. It includes 11 BRT stations in 7 cities, 3 parking facilities, and a transit center and is scheduled to open in 2024. It will provide 10-minute peak, 15-minute off-peak headways for I-405 BRT, up to 19 hours of service between Monday-Saturday and up to 17 hours on Sunday.

[I-405 Two-Year Update](#)
[I-405 Bus Rapid Transit](#)
[Community Transit - Customer Journey with ETLs](#)

Action: None

Follow-Up: None at this time

PUBLIC COMMENT

David Hablewitz suggested the Commission provide an opportunity for a panel presentation to counter the information provided. He said that most of the toll revenue is coming from Snohomish County drivers using the ETLs.

He said that the review did not mention collisions, which have increased and which delay the travel. He recommended that two-person carpools have priority over SOVs.

Michael Appleby said that he supported tolling on SR 167, but he does not support it on I-405. Tolling on I-405 is not popular; if you travel between 10 am and 2:30 in the afternoon, there is often congestion in the GP lanes, despite low tolls on the ETLs. Why not reserve the left lane to 3+ carpools and buses, allow 2+ HOV in the other lane?

TACOMA NARROWS BRIDGE (TNB) FINANCIAL PLAN UPDATE

Rob Fellows, Manager, Policy & Planning, WSDOT, reported that FY 2017 traffic was 1.4 percent below forecast. Traffic was up over 2016, but by a smaller amount than expected. This is considered a small forecast variance.

The current November 2017 forecasts projects this lower growth rate will continue. Cumulative toll and fee revenues over the FY 2017-19 biennium in the current forecast are \$2.9 million less than reported in the November 2016 forecast.

Total reported toll revenue was near forecast, with a variance of -0.5 percent. FY 2019 Revenue includes a \$5 Million short-term loan from the Motor Vehicle Fund that must be repaid in FY 2020. Cost changes for FY 2018 and 2019 from previous year's financial plan include biennium expenditures up by \$1.5 million

Looking out to 2021:

- Repair and replacement of toll equipment such as cameras and toll readers is needed at the mid-point of toll collection on the bridge (unchanged from last year's financial plan)
- TNB fund balance is projected to go below sufficient minimum balance during March through June in 2019.

In order to maintain fund sufficiency at current toll rates through FY 2019, the following policy options could be considered individually or in whole:

- Allow the 3-month rolling fund balance to dip below the defined SMB
- Redefine the Sufficient Minimum Balance to \$10 million
- Utilize Civil Penalty Revenue in the definition of revenue allowable to pay debt service, therefore closing the gap between the fund balance and SMB

[TNB Financial Plan](#)

Action: *Consider revisions to SMB policy*

Follow-Up: None at this time

TACOMA NARROWS BRIDGE (TNB) REFINANCE WORK GROUP DRAFT RECOMMENDATIONS

The Commission has led a work group of legislators and community leaders to assess options for the long-term toll payer relief for the TNB. Senior Financial Analyst Carl See reported that the Work Group held four meetings to develop its recommendations, due on January 5.

The Work Group Problem Statement: \$125 million in remaining debt service increases. The escalating debt service structure sets apart the TNB facility from financing for Washington State's other tolling facilities and has contributed to rising toll rates since the opening of the facility in 2008. This financing structure is not consistent with best practices, and is not supported by the Washington State Office of the State Treasurer.

Draft Recommendation Objectives:

To mitigate the impact of the debt service structure, the Work Group identified three objectives:

- Maintain toll rates at FY 2018 levels.
 - Addresses the impact of historical and future inequity caused by the escalating debt service.
 - Recognizes the burden on toll ratepayers caused by escalating toll rates.
- Funding to address immediate funding needs in the next 1-2 biennia.
 - Without financial support, WSDOT and the Commission project TNB toll rates to increase in FY 2020.
 - Overall funding needs for the next two biennia exceed the value of debt service increases.

- Will serve to maintain current toll rates, sets a precedent for additional financial support, and provides a down payment on future funding needs.
- Long-term plan to address increasing debt service costs.
 - The Legislature should declare or indicate its intent on how to use provided funds consistent with addressing the problem statement of increasing debt service costs, while supporting the capacity to maintain current toll rates.
 - Such intent may accompany funding for the full \$125 million in the budget, or in the case of partial funding, be policy direction for future budgets.

The Work Group intends one of the following policy bill scenarios be paired with either of the recommended funding scenarios.

- Scenario 1: Declare or indicate intent for future funding that fully addresses the \$125 million in debt service increases, while maintaining current (FY 2018) toll rates.
- Scenario 2: Require biennial mandatory reporting to the legislature on TNB funding needs from the Commission.

In the course of determining funding recommendations, the TNB Work Group identified several options that would not fully address the problem statement and objectives, but would support cost reduction and toll payer relief. These include:

- Motor Vehicle Fund loan forgiveness
- Use of additional bridge loans to support TNB fund sufficiency
- Use of non-toll Revenue for TNB repair and replacement costs
- Pro-Rate or defer facility repair and replacement costs and Customer Service Center procurement costs scheduled for FY 2027 – FY 2030
- Assess toll vendor and O&M costs to identify savings opportunities

[TNB Refinance Work Group Draft Recommendations](#)

Action: None

Follow-Up: None at this time

PUBLIC COMMENT

Larry Seaquist stated that the Tacoma Narrows Bridge toll payers are unfairly burdened. Bridges, tunnels and ferries being paid for in different ways is unconstitutional.

COMMISSION BUSINESS

Commissioner Jennings moved and Commissioner Young seconded the motion approving the October 17 & 18, 2017 meeting summary. The motion was approved unanimously.

Commissioner Jennings moved and Commissioner Young second the motion approving the November 15, 2017 meeting summary. The was approved unanimously.

Staff provided an overview of the Commission’s Draft 2017 Annual Report.

COMMISSIONER REPORTS

Commissioner Litt said that Phase 2 of the 2035 Washington Transportation Plan has been forwarded to the Secretary of Transportation for review and approval. He expressed concern about the lack of transparency in development of the final plan and responding to comments. He noted that the RTPOs would like to have a project list included in the WTP.

Commissioner Batra was busy attending Tacoma Narrows Bridge (TNB) workgroup, I-405 Executive Advisory Group, and tolling team meetings. He met with a private developer in Renton who is interested in water taxis on Lake Washington. He also attended an ACES Workshop in Seattle led by Tom Alberg and Inrix. Legislators expressed concern about addressing all four approaches simultaneously. He also attended a ferry workshop focused on passenger ferries around Puget Sound. TNB toll solutions are excellent ideas and he hopes there will be the opportunity to present them.

Commissioner Jennings attended the I-5 Bridge over the Columbia meetings. He also participated in RTC and tolling meetings. He likes the idea of modeling no tolls at night, if that works. Commissioner Jennings prefers keeping tolls low while construction of other projects continues. He would like the commission to continue to monitor TNB. He sees that AVs will be putting professional drivers out of work.

Action: None

Follow-Up: None at this time

SECRETARY REPORT

Roger Millar, Secretary, WSDOT, highlighted WSDOT progress in 2017, including completion of the tunnel dig under Seattle, the imminent closure of the Pt. Defiance route for Amtrak passenger trains, and the opening of the bicycle-pedestrian path on the SR 520 Bridge.

He also talked about the progress on the Snoqualmie Pass project, including the new snow bridge that should help alleviate avalanche closures.

WSDOT will issue the RFP this winter for design-build work on the Montlake interchange, the next step in completing the SR 520 expansion to I-5.

Action: None

Follow-Up: None at this time

ROAD USAGE CHARGE PILOT UPDATE

Jeff Doyle, Partner, D'Artagnan, reported that technical design & setup is nearly complete. To be completed prior to the January launch:

- Network of vehicle licensing offices to provide in-person odometer reading support
- Help desk and participant support
- Design and programming of smartphone application

Scheduled for later (after January launch):

- Testing and launch of financial interoperability testing with OReGO

- Organizational design (potential roles for government, private sector in a future RUC system)

Mr. Doyle indicated that work also continues:

- Coordination with Oregon DOT to establish parameters for financial interoperability test
- Outreach to stakeholders, responding to media requests
- Organizational design concepts for a future RUC system in Stage 2
- Outlining scope of 18+ policy issues for research and analysis in Stage 2

Commissioners asked what is the granularity of the GPS system. Will it count miles traveled on the ferry? No – the car must be moving. On a private road? There may be a difference between the two service providers.

[Washington State Road Usage Charge Pilot Project Update](#)

Action: *Continue to monitor RUC Pilot Program*

Follow-Up: None at this time

STATE OF WASHINGTON AUTONOMOUS VEHICLE WORK GROUP

In June, Governor Inslee Issued Executive Order 17-02 regarding testing and operation of autonomous vehicles on public roads in Washington and, created a state agency work group to advance the Executive Order.

Ted Bailey, Engineering Manager, Major Electrical Systems and Operational Initiatives, WSDOT, discussed the work WSDOT is doing to prepare for connected and autonomous vehicles. Are we focused on replacing the human driver with a robot? Alternatively, enhancing the lives of the people we serve. When will AVs arrive? It depends on whom you ask.

Benefits:

- Safety: currently 34,000 deaths each year, 94% likely correctable
- Mobility: “It Depends.” Vehicle Miles Travel (VMT) could go down 60% or up 200%. It depends on who owns the vehicles, private or shared mobility
- Infrastructure Sustainability: At full penetration of SAE Level 5 what is really needed beyond the pavement
- Inclusion: Reclaimed mobility, independence and quality of life for those that can no longer drive themselves
- Time: Reclaimed ability to work, play, sleep, eat, text while you travel
- Environment: Vehicles will likely be 100% electric; with shared mobility VMT drops

Challenges:

1. Insurance – How do you assign responsibility
2. Legislation – Regulating too far too fast could hinder innovation.
3. Cybersecurity
4. Funding for transportation system. Will AV’s usher in a replacement for the gas tax
5. Public Acceptance
6. Technological requirements are uncertain

7. Pilot testing restrictions – Controlled facilities or public roads
8. Education – assessing the trusted sources for information
9. Technical capability and capacity of the current workforce
10. How do you plan for something that's not fully understood
11. Too many unknowns

Governor's Internal Task Force meets monthly. Washington wants to be fast-following, but not in the lead.

How is WSDOT Preparing?

Successfully tested Vehicle 2 Infrastructure (V2I) technology on I-5 to replicate the functionality of Active Traffic Management through in-vehicle messaging using DSRC connected vehicle technology. At Level 4 and 5, will gantries and ramp, meters be needed.

Enhancing Roadway Safety and Operations – UW. Collecting and sharing information between pedestrians, bicycles, transit vehicles and traffic signals to enhance safety and operations through DSRC.

Preparing for changes in Traffic Signal Operations – WSU. What locations would benefit from CV equipment first and how should we adjust traffic signal timing?

Traffic Signal Project: Communicating traffic signal information to vehicles through the cloud

- 2 Locations along US 2 North of the City of Spokane
- 2 Locations along US 2 West of the City of Spokane
- 10 Locations along SR 522 North of Lake Washington through the Cities of Lake Forest Park and Kenmore
- 6 Locations along SR 305 from the Bainbridge Island Ferry Terminal to the City of Poulsbo
- 4 Locations along SR 500, between I-5 and I-205, through the City of Vancouver

Work Zone Safety Pilot

- Pilot Truck and Autonomous Attenuator Vehicle
- 2018 Pilot with Other States
- Considering Low Speed Striping Operations

Preparing to improve roadway Signing and Striping: “Good for human drivers today ... Prepares for AV's tomorrow.” Preparing a plan for how to approach an increased programmatic biennial investment in signing and striping.

What else could we pursue?

1. Look at cities and counties that are focused around pick-up drop-off zone policies
Allowing people to be picked up and dropped off anywhere may negatively impact congestion
2. Support legislation that supports continued DSRC deployment and protects the 5.9 GHz public safety band for interference-free operations
3. Consider opportunities to leverage public roadway right of way assets in support of CV deployments. (e.g. Delaware recently passed legislation to allow telecom companies to

construct cell towers on state R/W in exchange for the installation of CV supporting technologies)

4. Explore the potential to expand the scope of use for the funds that are generated from the current \$150 Electric Vehicle car tab fee
5. Improve real-time communication of ongoing work zone operations
6. Improve real-time communication of construction activities

Is the ideal autonomous car one that will let you do what you want when you want right up until the point until you have an incident then the technology takes over? Toyota thinks so...

- They are developing a system called “Guardian.” The goal is to make a human driven car un-crash able.
 - Toyota Level 4 cars will be sold with the Guardian System
 - Full Level 4 in a geofenced area
 - Full self-control with “guardian backup” in areas where humans still desire to drive the car

Secretary Millar reflected that DOT peers are looking at connected and coordinated:

- Let the technology shake out
- Give people options in the face of congestion
- Be aware of disruptive technology, but harness the tech for the future we want, not the future that industry gives us

Action: None

Follow-Up: None at this time

REFLECTIONS AND NEXT STEPS

Following the TNB discussion, Commissioner Serebrin is interested in the balance between taxing and tolling. There are questions of equity.

Commissioner Young shares Commissioner Serebrin’s views. Commissioner Young was moved by Mr. Seaquist’s comments and thinks that we need to look at a statewide approach to tolling, fare setting, taxation and regional burdens.

Chairman Litt noted that when manage traffic with dynamic tolls, we need to look at who benefits. He would love to see something happen to provide TNB toll-payers relief.

Action: None

Follow-Up: None at this time

TRANSPORTATION COMMISSION

JERRY LITT, Chairman

ROY JENNINGS, Vice-Chairman

SHIV BATRA, Member

HESTER SEREBRIN, Member

ABSENT
JOE TORTORELLI, Member

DEBBIE YOUNG, Member

VACANT

ATTEST:

REEMA GRIFFITH, Executive Director

DATE OF APPROVAL